

nearly 1 inch ; height of head, 2 inches ; length of body, from occiput to back of hind legs, 8 inches ; total length of tail, 12 inches ; length of tail to commencement of single crest,  $5\frac{1}{2}$  inches ; length of the part of it with single crest,  $7\frac{1}{2}$  inches.

On the whole, this new species seems to combine many of the characters both of *C. vulgaris* and *C. leptorhynchus*. In its head it is nearest to *C. vulgaris* ; in its colouring, scuta, and tail to *C. leptorhynchus*.

I owe this specimen to the kindness of the Rev. W. C. Thomson, the accomplished missionary at Old Calabar. He wrote me word long before I received it that there was another species of Crocodile in the Old Calabar besides the two generally known, that it was extremely scarce, but that he would endeavour to procure a specimen for me. He did so, and sent me the individual from which this description is taken, alive. It reached Liverpool in good health, but, most unfortunately, was drowned on the railway on its passage to Edinburgh. The gentleman who was kind enough to charge himself with it thought it would not live unless brought in water, and he put it in a foot-pail half full of water. The water was too deep to allow the poor animal to rest on the bottom of the pail and stretch up its head for breath ; and when the jolting of the railway commenced, it was kept in a constant state of submersion. The consequence which might have been anticipated ensued, and my Crocodile arrived dead. There is no doubt that it is a good species, half-way between *C. vulgaris* and *C. leptorhynchus*.

# 15. NOTE ON THE HABITS AND AFFINITIES OF THE KAGU (RHINOCETUS JUBATUS). BY A. D. BARTLETT.

(Plate XXX.)

At the first sight of this bird, one is struck with its resemblance to several different genera, and at once calls to mind *Eurypyga*, *Edicnemus*, *Cariama*, *Psophia*, *Nycticorax*, and *Scopus* : one and all appear more or less represented in its singular combination of characters.

The actions and movements of the Kagu are generally quick and lively, so opposite to the slow and chameleon-like movements of the true Herons that one can hardly suspect it to be an Ardeine bird. This, however, it doubtless will prove to be, but so modified and adapted to a different kind of diet and mode of life, that its real affinities are difficult to recognize.

With its crest erect, and wings spread out, the Kagu runs or skips about, sometimes pursuing and driving before him all the birds that are confined with him in the same aviary [among these are several Blue Waterhens (*Porphyrio*)], evidently enjoying the fun of seeing them frightened ; at other times he will seize the end of his wing or tail and run round, holding it in his bill : from a piece of paper or dry leaf he derives amusement by tossing it about and running after

it. During his frolic he will thrust his bill into the ground and spread out his wings, kick his legs in the air, and then tumble about as if in a fit. At other times he appears intent upon catching worms: he steps slowly, his neck close to his body, his crest flat on his back, all his feathers smooth and close; he raises one foot, and with two or three gentle strokes he paws the ground, swiftly he darts his bill into the earth and draws forth a worm, a sudden shake and it is swallowed; again he runs; stopping suddenly, he makes another dart; and thus he continues to capture this kind of food. With respect to feeding, this bird differs much from the Heron family, seeking out, in every hole and corner, worms, snails, and other living things, whenever they are not in motion: as soon as a snail is found, he breaks its shell by repeated knocks upon the ground, and after shaking the fragments of the broken shell off, the animal is swallowed. In no instance, however, that I have observed, does this bird eat bread, seed, or any kind of vegetable, but he strictly confines himself to insects and other animal substances.

The skeleton and internal anatomy of the Kagu being entirely unknown to me, I can only form an opinion of the affinities of this bird by its external characters, habits, &c.; and I find that the remarkable powder-down tufts, which are well developed in all the Ardeines, are carried to a greater extent in this bird; for above and around the wings, on the breast beneath the wings, and on the back and belly, this structure exists, and the enormous quantity of the white powder given off is surprising. I have seen the bird enter the small pond and attempt to wash; and upon dipping partly under water, the whole surface of the water was covered with a white film, like French chalk. The strong resemblance between this bird and *Eurypyga*, even in the markings upon the wing- and tail-feathers, the mode of spreading out the wings, and other resemblances, convince me that I am right in considering the Kagu to be more closely allied to *Eurypyga* than to any other bird that has come within my notice.

Dr. E. Crisp exhibited the enlarged tail-glands of two domestic hens that had been kept in a confined situation in London. The enlargement appeared to arise from closure and obstruction of the ducts and the increase of the oily secretion. These glands in each of the hens weighed about 350 grains, their normal weight being about 10 or 12 grains.

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